DISTRIBUTED ENERGY RESOURCE MANAGEMENT SYSTEM (DERMS)
IMPLEMENTATION & INTEGRATION PROJECT

Applicant: CITY OF NAPERVILLE, *Naperville Electric Utility (NEU) – 61,500 Electric Customers*
Naperville Electric Utility Project Manager: Phil Calderone, Engineering Manager

PROJECT SUMMARY

In order to support Illinois' clean energy supply transition to **100% clean, renewable energy by 2050** and to meet the increasing levels of solar installations over the next several years which have now been further catalyzed by renewed production incentives included in the Inflation Reduction Act, Naperville is seeking to deploy a robust **Distributed Energy Resource Management** platform, which enables **greater visibility, monitoring and control of Distributed Energy Resource (DER) production** and growth scattered across NEU's system (**2,221** EVs in the community to date – 2nd in Illinois behind Chicago, & over **550 solar producers**), as well as to support future distribution system investment planning.

METHODOLOGY

The **Distributed Energy Resource Management** (DERMS) platform will be used in NEU's 24x7 control room to better inform and support future distribution system investment planning. This Project includes over a 3-year period:

- **The evaluation of Naperville's current systems**, performance of the appropriate upgrades to those systems,
- **The implementation of a DERMS system** that is integrated and interfaces with existing legacy NEU systems, such as NEU's SCADA and GIS, and
- **Testing and Validation** of the DERMS system, as well as performance of user training to ensure NEU personnel are able to use the system effectively.

PROJECT IMPACTS

The DERMS program demonstrates NEU's current innovation – it leverages the foundational data and network available through its already-deployed AMI system, SCADA system, OMS, and GIS systems to drive significant incremental value, meeting a fast-growing need in the community with the appropriate technology solution.

The project will spur additional innovation as it refines its curtailment and control programs using the analytics available with the DERMS software, as well as being able to more efficiently account for the stresses introduced from DERs and EV's when performing its long-range distribution and capacity engineering planning going forward.

This program additionally will catalyze community transformation and spur future investment - a robust DERMS system enables NEU to continue to encourage and ramp-up customer DER projects, storage projects, and EV infrastructure deployments, setting the foundation for the next generation of utility needs and ever-evolving customer requirements.